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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,768	06/29/1999	SCOTT BERMINGHAM DOYLE	17286	7075

7590 08/09/2004

THE WHITAKER CORPORATION  
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EXAMINER

NGUYEN, THUAN T

ART UNIT	PAPER NUMBER
2685	19

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/342,768

Applicant(s)

DOYLE ET AL.

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Priority*

1. Sydor is a valid prior art because it was published earlier in Canada in May 5, 1998 and claimed for foreign priority data prior to the claiming date of the provisional date of this application on July 20, 1998.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -  
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.*

3. Claims 1-6 are rejected under 35 U.S.C. 102(a) as being anticipated by Sydor et al. (U.S. Patent No. 6,473,616 B1/ or "Sydor" hereinafter).

Regarding claim 1, Sydor discloses "a local multipoint distribution service system (LDMS) having comprising an antenna for transmitting a signal of reused frequency within a specified range from the antenna, the antenna having multiple radiating antenna elements provided with the signal, the signal provided to each of the antenna elements being adjusted in phase and in amplitude across the radiating elements to mitigate radiation above horizon, and the signal provided to each of the antenna elements being adjusted in phase and in amplitude to decrease attenuation in radiated power with distance from the antenna" (see col. 2/line 32 to col. 4/line 21 for LMDS and its benefits; col. 6/line 51 to col. 7/line 18 for frequency reused in the LMDS system; col. 9/lines 7-43, col. 11/line 45-col. 12/line 28, and col. 14/line 45 to col. 15/line 35 for amplitude and

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phase angle of radiating antenna elements being adjusted; and col. 18/lines 29-47 for mitigating radiation above horizon of the signal provided to each of the radiating elements of the antenna; and col. 9/lines 30-43 and col. 15/lines 1-36 for sidelobe levels referred to attenuation in radiated power with distance away from the antenna addressed).

As for claim 2, in further view of claim 1 above, Sydor further suggests the step of "each of the antenna elements being adjusted in phase and amplitude of signal across the antenna elements to mitigate nulls between lobes of combined radiated signals collectively from the antenna elements", i.e., the maximum and minimum power level is maintained by implementing the low sidelobe or shape beam antennas in adjacent sectors (see col. 9/lines 7-43, and col. 11/line 45 to col. 12/line 28, col. 13/lines 5-24, and col. 18/lines 29-47 for minimum and maximum range of power levels).

With respect to claim 3, in further view of claim 1 above, Sydor further reveals "each of the antenna elements being adjusted in phase and in amplitude of signal across the antenna elements to reduce excess signal power at near range", i.e., an excess power output is reduced at near range or at adjacent sectors by eliminating unwanted energy from using low sidelobe antennas (see col. 15/lines 1-35, and col. 18/lines 29-47 for a -30dB sidelobes is maintained for mitigating interference at a reduced level as well as maximum and minimum range of power levels).

As for claims 4-6, a corresponding method for use in the disclosed system is rejected for the reasons given in the scope of the system claims 1-3 as already disclosed above.

***Response to Arguments***

5. Applicant's arguments filed on 5/14/04 have been fully considered but they are not persuasive. Applicants argue that Sydor is not prior art to the present application under 102 (e) (or any other part of the statute). The Examiner shows that the present application is clearly under 102 (a) of the statute. Based on this priority date (the Priority section above), without changing any scope of the rejection with new arts or references, the Examiner disagrees with the Applicants' arguments and stands with the rejection by providing further explanations as follows.

Applicants argue and do not clearly understand the sidelobe issue, which related to "the attenuation in radiated power with distance away from the antenna". Sidelobe is the minor lobe of an antenna pattern as distinguished from the main lobe of the antenna pattern (by the Newton's Telecom). The illustration is showing in Figure 3 with antennas and radiated beams with multiple of directive beams and small side lobes overlapping in each beam (col. 9/lines 7-43). Sydor further discloses that the invention teaches to dynamically monitoring of the propagation environment (of antennas) and dynamically assigning frequency bands by controlling the radiated power of all terminals (col. 6/lines 37-45). Everyone knows that propagation of antenna (signals) will fade away as the signals travel away from the antenna (col. 3/line 20 to col. 4/line 65 & col. 5/lines 17-30) and a dynamic controlling power is used (col. 7/line 62 to col. 8/line 19); therefore, attenuation is affected by the process of minimizing signal interference by avoiding multipath delay. It also includes the main lobe and sidelobe levels of antennas as well as the controlling of radiated power levels in order to achieve the desired and addressed to a reduced steep attenuation (col. 9/lines 7-43 & col. 11/lines 45-62).

***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**7. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306, (for Technology Center 2600 only)**

*Hand-delivered responses should be brought to Crystal Park II,*

*2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).*

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.



TONY T. NGUYEN  
PATENT EXAMINER, FSA

Tony T. Nguyen  
Art Unit 2685  
August 2, 2004